Contents

Introduction: Finding Common Ground Beyond Fragmentation

Brian Hudson, University of Dundee, and
Meinert A. Meyer, Hamburg University

1 Overview of this Chapter

This chapter begins with an outline of the European context within which the twenty six research papers presented in this book have emerged. A particularly important aspect of this context is Network 27 on Didactics, Learning and Teaching[1] of the European Educational Research Association (EERA) which has formed the core of the research community in which this work has developed over a five year period (2006-11). The next part of this chapter provides an overview of the six sections which make up the structure of the book as a whole. A discussion then follows of the clear continental divide with respect to didactics, learning and teaching in the European landscape which is based on the references used by the contributors to this book. This leads to a consideration of the historical origin of present-day didactics which can be traced back to a common heritage in the work of Jan Amos Comenius (1592-1670) in order to provide a platform in the search for common ground. In the section which then follows there is a discussion of the didactic triad as a tool for holding the complexity of teaching-studying-learning situations and this is considered in an expanded context in which classroom interaction in the school is placed within a wider societal context. Based on a review of the contributions to this book, the final parts of this chapter consider existing knowledge gaps between different national traditions and also identify themes that form the basis for building and extending common ground. The themes that have been identified through this process of synthesis relate to pedagogical content knowledge, learner knowledge, joint didactical action, curriculum research, the so called shift from teaching to learning, the philosophy of Bildung and its practical implications, links between theory and practice and the significant role of *experimental* schools. Finally these themes are proposed for consideration within the wider research and practice community as the basis for future international co-operation in order to advance further mutual understanding and common insights in this important field.

1 http://www.eera-ecer.eu/networks/didactics

2 Moving Beyond Fragmentation

This book emerges from the work of the European Educational Research Association (EERA) and in particular from the activities of EERA Network 27 on Didactics, Learning and Teaching. The establishment of the network was initiated at the European Conference on Educational Research (ECER) in 2006 at the University of Geneva and was marked by the publication of key papers from the ECER 2006 conference in a special edition of the European Educational Research Journal (Hopmann 2007, Caillot 2007, Chevallard 2007, Hudson 2007, Klette 2007, and Meyer 2007). Almost all of the papers in this book were originally presented as part of the network activities at one of the subsequent ECER conferences during the ensuing five-year period.

At the outset, the field of research on didactics, learning and teaching was seen to reflect the very diverse systems of initial teacher education across Europe and to be characterised by its *fragmentation.* Striving for a state beyond fragmentation then is the endeavour to restore as a whole what was and is a whole.

Is this an adequate metaphor to describe the present state of didactics, learning and teaching in Europe? Is there potential to find common ground and establish a pan-European field of research on didactics, learning and teaching? We think the EERA network on Didactics, Learning and Teaching has provided a platform allowing participants to make significant contributions to this field at an international level and for the publication of this book. The network aims to advance research on didactics, learning and teaching in Europe and to establish the research field on an international basis. This is seen as a necessary pre-condition for improving the quality of teaching, learning and the educational work of teachers at all levels of the education system, especially in schools and in teacher education, and this means we need, first of all, a description and, if possible, a comparison of the different traditions of concept building around the practices of teaching and learning.

But what does "comparison" mean if an educational discipline called "didactics" does not even exist in English-speaking countries? The papers assembled in this book relate to *curriculum studies, learning and instruction, formal and informal learning, domain-specific instruction, teaching, teacher education, teacher research and professional development, portfolio work, classroom management, lesson planning, technology-enhanced learning, teacher leadership, school development, and much more*. Do these share a common core? From our perspective, we believe that they do. These educational disciplines and sub-disciplines have shared objectives and contents and this allows us to search for common ground (cp. Kansanen 1995, 1999; Hopmann and Riquarts, 2000, Westbury, 2000, and Hudson 2007). However, before we can engage in this activity we have to accept and explain the different traditions of teaching and learning and concept building around it.

3 European Diversity

Most of the authors in this book are involved in European activities and the majority of them have been active in the EERA and presented papers at ECER conferences. Some are established researchers and "old timers", whilst others are newcomers to the field. In our attempt to move towards a viable and sustainable European field of didactics, we are interested in explicating the depth and breadth of the different traditions, following a bottom-up strategy. Such a strategy may produce a patchwork of topics, research strategies and interests, although we strive for integration across these diverse aspects. There are six sections in this book arranged according to the perspective of the editors.

Part One: From leaching to learning and back to teaching

The papers arranged in this introductory section are intended to show what we are striving for. They focus on didactics in the narrow sense, i.e. on teaching and learning. They are international with respect to content and research strategies, and they are strategic; they show their authors' perspectives for the future development of didactics, teaching and learning.[2]

Ingrid Carlgren identifies three conceptions/constructions of the teacher's work: (1) teaching a course; (2) teaching for understanding; and (3) teaching for capabilities. We think that the concept *teaching for capabilities* holds integrative potential for the future development of didactics. Anne Maj Johansson and Per-Olof Wickman show what experienced teachers do when students have not yet mastered scientific concepts in physics. The authors focus on the teachers' ability to understand the language of the learners. We think that their concept of *learning progressions* is a helpful addition to teaching for capabilities. The same holds for Gérard Sensevy's paper, but from a different perspective. He focuses on the instructional process and shows that teaching and learning means *joint action*. He describes this process on a semantic basis, thereby opening the doors for sustainable classroom research. We conclude the first part of the book with a paper by Pertti Kansanen. He provides a careful analysis of Lee S. Shulman's concept of pedagogical content knowledge in which he raises fundamental questions about its nature, reflects on its origins and compares it to the German tradition of Fachdidaktik. He also highlights some of the problems arising from the country-specific nature of much educational research.

Following Carlgren, we accept that there is a paradigmatic shift from teaching to learning and from research on teaching to research on learning. Yet the papers show that this shift is intensifying the need to focus on the teacher and the development of his or her teaching capabilities.

2 We return to the four authors in Section 7 of this introduction.

Part Two: Teacher education

From our perspective, Part Two of this book best demonstrates what the diversity of the European landscape may mean for didactics. The living conditions of students and teachers, the school systems, along with the curricula and teacher education practices in Iceland, Scotland, Sweden and Lithuania are very different. There is, however, a remarkable similarity of qualitative research practice, giving the teachers a voice. They are no longer degraded as objects for data collection. Giving the teachers their voice involves the possibility that sometimes policymakers may not like hearing what they have to say. Hafdis Ingvarsdottir gives an example of such a phenomenon. She searches for a paradigm shift in language pedagogy, she wants the teachers to accept every learner's uniqueness, although the practitioners of English as a foreign language do not feel the need for "root changes". Sheila Henderson and Erika Cunningham cope with comparable problems concerning the introduction of a new curriculum in Scotland, Curriculum for Excellence. This then means that we may have a paradigm shift in theory – in line with Ingrid Carlgren's contribution – but this does not yet imply a change in practice.

Part Three: Teacher research

Teacher research is an indispensable part of didactics and is closely related to teacher education.

Florence Ligozat asks in which way teachers of primary mathematics work out teaching designs from the curriculum material they have at hand. Through a careful and systematic analysis she shows what they do and how they justify what they do. We think that the frame she uses to describe instructional processes: joint didactic action, has significant potential to inform research in this field across Europe.[3] Kirsi Pyhältö, Elsi Ahonen, Janne Pietarinen, and Tiina Soini bring in a surprise, albeit not for insiders. The majority of Finnish teachers they interviewed demonstrate a quite stable traditional understanding of their job: the teacher leads the class, and good students are receptive students! Cathryn Carena and Teresa Moran show in a similar vein that the didactic practices of the Italian primary teachers they interviewed have – as they put it – "survived the curricular reforms of the past ten years". Finally, with respect to school leadership, Gerry MacRuairc and Judith Harford find that everyday practices are outdated; nurturing leadership and sharing responsibilities are scarce, and school development is hampered.

3 See the papers by Gérard Sensevy, Monique Loquet, Brigitte Gruson and Anne Maj Johansson and Per-Olof Wickman in this book.

We conclude that we have to accept, as our starting point, a difference between theory including good examples (as presented by Ligozat, and Johansson/Wickman) on one hand and the traditional practice of a majority of teachers across Europe on the other (as presented by Pyhältö and colleagues, Carena/Moran and MacRuairc/Harford, and Ingvarsdottir).

Part Four: Didactical design and lesson planning

The papers presented in this part discuss the importance of didactical design in classroom management and lesson planning. Like before, we see great variance in modelling procedures and once again we see the difference between theory and practice.

Brian Hudson observes that the rapid expansion of ICT infrastructure and applications in recent years has led to an emphasis on the idea of personalisation and personalised learning in didactical design. In this frame, "radical personalisation" as *co-construction* offers a learning-centred perspective for students as active participants in building their own "networks of knowledge", thus opening up new possibilities for democratic and participatory learning environments. Avril Loveless shows that creative learning activities need meaningful contexts and that ICT offer tools for creating such contexts. Her field of empirical research is centred on student teachers' preparation for a pedagogy for creativity. While Brian Hudson (2002, 2003, 2007) presents Wolfgang Klafki's model of *Didaktik analysis* to the English-speaking world, in this part of the book Karl-Heinz Arnold and Barbara Koch-Priewe offer suggestions on how to adapt Klafki's concept of lesson planning to present-day demands. They suggest a combination of his model with the model of Wolfgang Schulz, a competing German didactician, who laid special emphasis on student participation. In her essay on the importance of Scotland's *Curriculum for Excellence,* Yolande Muschamp returns to Dewey's paper on *The child and the curriculum* (1902/2008). She states that John Dewey's "guided pathway" provides a useful metaphor which, when combined with the concept of Bildung, provides a tool for the design and construction of these activities.

We come back to Hudson's and Muschamp's suggestions to consider whether common ground can be found in a combination of the German concept of Bildung with Dewey's guided pathway concept and his notion of educational experience.

Part Five: Subject didactics and national didactics

This section starts with Bernard Schneuwly's paper on the history of subject didactics. It is revealing that subject didactics as university disciplines did not come into existence until the end of the 19th century, fostered by a deep on-

going transformation of teacher education in many European countries. Today they have become increasingly autonomous. Monique Loquet belongs to the Joint Didactical Action theory group led by Gérard Sensevy. She shows in her analysis of a father-mother-child interaction what micro-analyses of action and communication can reveal. Her example is a three-year-old girl learning how to make bubbles underwater. Brigitte Gruson and Dominique Forest once more show how powerful an instrument joint action analysis can be. They compare the classroom activities of a teacher of English and a teacher of Spanish as foreign languages. The tasks of the teachers are similar, yet what they do differs greatly. Joana Duarte and Dulce Pereira present a success story of Portuguese and German bilingual instruction in Lisbon and Hamburg. They show that the good learning programmes in both languages have positive results, set against the old argument that schooling in two languages implies deficiencies in both of them. Anatoli Rakhkochkine's paper is the only national portrait presented in this book. The author shows that the traditional Russian approach to didactics, learning and teaching depends on the deeply rooted idea of the transmission of knowledge from the teacher to the students. References to the international development of didactics, learning and teaching have a selective character.

From our, namely the editors', perspective, the papers in Part Five demand further research on the influence of practice on concept building and of concept building on practice. This brings us to the last part of our book.

Part Six: Educational theory and empirical research

It is well known that it is difficult to bring theory and practice into harmony, and yet researchers continue to strive towards this goal. The papers in the final part of the book illustrate the complex nature of the task.

We all accept that the instructional process is highly complex, but the application of complexity theory to didactics and classroom instruction represents a relatively novel approach. The paper by Mark Hardman is a good example of such an approach. We are used to talking and writing about "Bildung" (formation), but empirical, robust findings concerning formational processes are rare. We thus welcome Anke Wischmann's paper on this topic. It is recognised that school is not everything in the life of a child yet development in school and in the classroom is rarely studied in relation to the development of children and adolescents as seen in youth research. Anja Kraus' paper presents work from such a perspective. There is a deeply rooted conviction, especially at the policy level, that quantitative large-scale evaluation is the best, but is that true in didactics? Is not such an approach too far away from the everyday problems of teachers? This is the subject of Colleen McLaughlin's paper – research by teachers and students concerning the improvement of classroom instruction. Empirical research on classroom instruction depends on the normative framing

of instruction and teacher-student interaction. However, theory construction that addresses this problem is scarce. Accordingly, we present Meinert A. Meyer's paper on this aspect which is based on the need for a deontic frame for didactics, learning and teaching.

As these papers reveal, research on didactics, learning and teaching in Europe can be characterised by its diversity. Yet what these papers also show very well is that there is similarity of problems and, to some extent, common ground for both theory and practice. That is why, in the following sections of this introduction, we analyse and evaluate the situation and seek an argumentative thread that integrates the problems, analyses and solutions presented in this book with the aim of bringing new insights to this field of research. We start with a fresh analysis of the diversity of didactics, learning and teaching in Europe.

4 The continental divide at sea level

If a geographer had to describe the European landscape with respect to didactics, learning and teaching, he might well be surprised to find a clear continental divide, a barrier which produces two parts of Europe. On the West of this divide at sea level, we see the United Kingdom plus the Nordic countries, along with the Netherlands and Dutch-speaking Belgium. On the East, we see the rest of Continental Europe.

There are good reasons why we put the British educationists from the disciplines and sub-disciplines listed above and the Nordic didacticians together. As a rule, the Nordic didacticians are familiar with Anglo-American research and the relevant literature written in English. They speak and write in English, very often as if they were native speakers.

There is a simple proof of the veracity of our claim in this book. A read of the references shows that the authors from the Nordic countries, Carlgren, Johansson and Wickman, Kansanen, Ingvarsdottir, Granberg, and Pyhältö and colleagues, make use of relevant publications from the United Kingdom, Canada, the United States, Australia and all the other English-speaking countries. Counting the references in the six papers from the Nordic didacticians reveals the impressive dominance of English-language research, 139 references from English-speaking countries plus translations into English, and only 18 references from the Nordic and other countries.[4] Naturally, the situation differs for the authors from the United Kingdom and the Republic of Ireland: Henderson and Cunningham, MacRuairc and Harford, Hudson, Muschamp, Loveless, Hardman and McLaughlin show that the literature used stems almost exclusively from English-speaking countries: 231 English lan-

4 We must take into consideration here and below that this reference count is not directly representative for the majority of authors publishing in their mother tongues. Naturally, they will quote less literature from abroad.

guage references and three references of non-English origin. An evaluation of the situation so far allows the conclusion that the didacticians of the Nordic countries are better off with respect to literature. They read the Nordic plus the Anglo-American literature.

The situation regarding the rest of Continental Europe is different. The French-speaking authors in this book, Sensevy, Ligozat, Schneuwly, Loquet, Gruson and Forest, have 52 Francophone references, 60 references in English and six references of German and Latin origin, whereas the German-speaking authors, Arnold and Koch-Priewe, Wischmann, Kraus and Meyer, make use of 113 German, 34 English and two French references. This then is quite a surprise because there is a stereotyped belief in Europe that French authors only read French literature and only write in French, while the Germans, living in the middle of Europe, are internationally oriented and like to read English literature. In the field of didactics, this demarcation is obviously not the case. With regard to the rest of Continental Europe, Bubnys, Duarte and Pereira, Rakhkochkine, Carena and Moran depend on English literature (98 references) and cite considerably fewer national (41 references) and other literature (25 references).

It is necessary to add that authors from Eastern and Southern Europe are significantly under-represented in our book, and that this is not due to neglect on our side. The South and the East of Europe are more or less *terra incognita* in didactics as far as our experience in EERA Network 27 would suggest. The few hints available to us suggest that didactical research is heavily curriculum-oriented; and we know that the large majority of teachers practice teacher-centred instruction. Anatoli Rakhkochkine's contribution shows that, nevertheless, this can be interesting and informative for didacticians from other countries in Europe.

A few interesting cross-relations should be mentioned. There is an axis from Stockholm to Rennes and Geneva concerning instructional research; the papers by Johansson and Wickman, Sensevy and Ligozat provide examples of this aspect. Also there is a Scandinavian-German tradition which focuses on the usefulness of the concept of Bildung; we refer to the paper of Pertti Kansanen in this book and to Hudson (2003). We hope that the EERA's activities will enhance such cross-fertilisation of ideas in the future.

We have already stated the fact that *Didaktik* is a tradition of studying teaching and learning which was virtually unknown in the English-speaking world. Whilst Hopmann and Riquarts (2000) called for the start of a dialogue between the *Didaktik* and curriculum traditions, to date little sustained activity has resulted. This perspective forms a fundamental part of the rationale for this book.

Our argument in favour of the development of a pan-European field of research on didactics, learning and teaching relates to the historical origin of didactics, as we illustrate in the next section.

5 The historical origin of present-day didactics

It is obvious that national and local differences in the practice of learning and teaching coincide with differences in concept building. However, there is a common heritage which begins with Jan Amos Comenius (1592-1670), the great Czech educator and first real European in the field of education. He wrote his "Didactica magna" (*Great Didactics*) in the first half of the 17th century and published it in 1657. His work entitled "Pampaedia" (*Holistic Education*), which is a comprehensive construction of lifelong schooling, was written at the same time but only published in the 20th century after it had gone missing. All teachers and all researchers who work in the field of learning and teaching can look back to Comenius as the founding figure in the field.

In his "Pampaedia", Comenius defines the *universal culture* (*cultura universalis*) of mankind, in childhood, all through life and until death, as the ultimate objective of education. All men and women have to be educated and they have to strive for that, in knowledge acquisition (*sapientia*), in moral development (*mores*) and religion (*religio*).

Comenius starts his case for lifelong learning with a stunning argument. He writes that it appears a difficult task to get all mankind to participate in the universal culture in such a way that they would undergo a transformation so as to become new men and women in the light of God. However, he adds that this aim is so wonderful that pondering about its impossibility should be postponed as long as one has not searched for the impossibility of looking at everything.[5] Comenius continues his argument by explaining why and how it is possible to educate everyone concerning *everything* they need in a *thorough* way (*omnes omnia omnino*). He is full of optimism, even though he suffered a great deal during the Thirty Years War which devastated large parts of Europe.

We think that his educational optimism offers a good platform in the search for common ground in the field of didactics, teaching and learning in Europe.[6] However, historical argumentation produces problems because history is transformation. From a systematic perspective, historical arguments do not count. Let us therefore move to a systematic argumentation.

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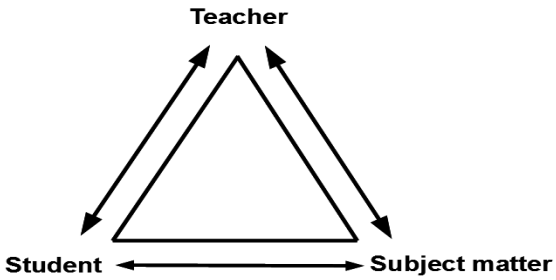
5 „Difficilè videatur impetratu, ut Omnes homines Culturae adhibeantur; ut Culturae Universali; ut Culturae solidae; eos in Homines novos, ad imaginem Dei veram verè transformaturae. Quia tamen quod optatur pulchrum est, impossibilitatis imaginatio abesse debet, nisi postquam tentatis omnibus, Omnia frustra tentari patuerit" (Comenius 1960, p. 10)

6 See Bernard Schneuwly's paper in this book for further reflections on Comenius' importance for present-day subject didactics.

6 The expanded didactic triangle

The so-called didactic triad or triangle, whose origin – somewhere in the second half of the 19th century – is unclear, can help us identify a common core for all the disciplines and sub-disciplines listed in the first section of this introduction which contribute to what is common ground in didactics.

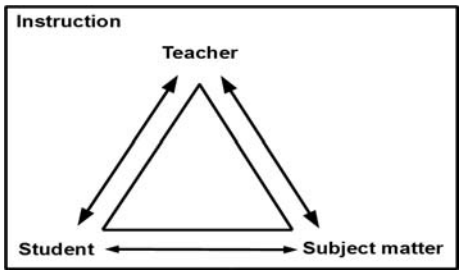


The *triadic relation* of teacher, student(s) and subject matter is meant as an invitation not to reduce the complexity of the didactic situation. The triad can be seen to offer tools that help sharpen the focus for the analysis of all teaching-studying-learning processes (Hudson 2002). The students' cognitive and moral development and the teachers' professionalism depend on each another and, in addition, subject matter/content has to be considered in relation to teachers and students. We may take Lee S. Shulman's (1987) *pedagogical content knowledge* as an example of that. The teacher's competence with respect to *conten*t knowledge must be transformed into *pedagogical* content knowledge.

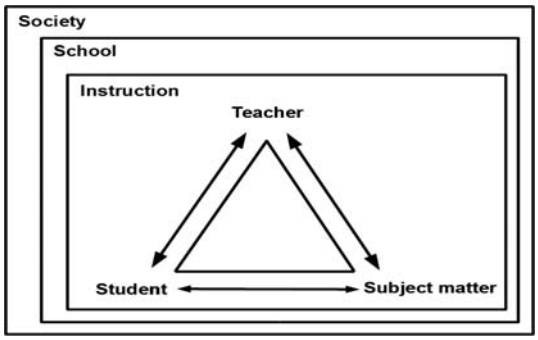
Critical friends may object that the didactic triangle is too simple in the light of a holistic approach to teaching and learning. One might even claim that it wrongly insinuates that students can only learn when teachers teach them.[7] In response, we hold that it is a good starting point for *further elaboration*, precisely due to its simplicity. The triadic teacher-student-subject matter relationship is at the core of the *instructional process*, and accordingly we explain what the reader may have taken for granted before: the triangle can be understood as the centre for more complex models. The papers collected in this book demonstrate the usefulness of this procedure.

The first expansion is to bring in the classroom situation, i.e. the instructional process. Instruction is much more than teacher-student interaction with respect to subject matter:

7 See Andreas Gruschka (2002).



Focusing on the instructional process however is not enough. There is a second necessary expansion with respect to our papers. Instruction mostly takes place in schools and schools are subsystems in our society. That is why societal change is reflected in schools. We may regard the dramatic development of Information and Communication Technology and its influence on classroom practice as an example of that:[8]



It is time to ask how far we have come. Claiming that didacticians can look back to a great founding figure and that they somehow depend on the didactic triangle and its expansions is not sufficient to move beyond fragmentation and to find common ground. The triangle is a construct, nothing more. Hence we took the diverging national practices as a starting point to search for common ground and create shared perspectives, and this is what we consider in the next sections.

8 The papers by Granberg, Hudson and Loveless focus on this development.

7 Knowledge gaps and common ground

Reviewing the contributions to this book has revealed national traditions of didactics and the fact that researchers are dealing with comparable problems without communicating with or apparently knowing about each other. For example, we found English work on student consultation and German work on student feedback and, throughout Europe, we found national research concerning national curricula. But where is the European curriculum research and theory construction? We found that sometimes the knowledge gap is unilateral. For example, Scandinavian didacticians will refer to the Anglo-American work on "reflective practice" (Donald A. Schön) and the German model of *bildungstheoretische Didaktik* (Wolfgang Klafki). However, the representatives of the Klafki school are seemingly unfamiliar with the status of Schön and his followers, even though there are obvious and impressive analogies in concept formation. It thus makes sense that quite a few authors have called for the start of a dialogue between the Continental *Didaktik* and Anglo-American curriculum traditions.[9] As editors of this book, we support these activities and, in so doing, build on the first collection of papers published in the European Educational Research Journal as mentioned above (Hopmann 2007, Caillot 2007, Chevallard 2007, Hudson 2007, Klette 2007, and Meyer 2007). As we see it, the exploration of differences and similarities in concept formation, didactical habits and problem solutions helps with bridging the gaps and offers the potential of a new dimension and fresh insights in the didactic triad and reflective practice.

In the following sections, we offer proposals for building and extending such common ground. Putting it metaphorically, we may say that we invite the reader to accompany us when we traverse bridges.

7.1 Pedagogical content knowledge

It may be that pedagogical content knowledge is a concept and programme relevant to all teachers and didacticians in Europe. So what is it? In his paper in this book, Pertti Kansanen finds the core of pedagogical content knowledge (Lee S. Shulman, 1986; 1987) by analysing the central concepts of the teaching-studying-learning process. In doing this he explicitly refers to the didactic triangle: (1) It is the students' task to study the content defined in the curriculum; (2) It is the responsibility of the teacher to facilitate the students' activities in such a way that learning takes place optimally; and (3) Pedagogi-

9 It is worth noting that several writers have highlighted the fact that *Didaktik* is a tradition that is virtually unknown in the English-speaking world (Kansanen 1995 b, 1999; Kansanen and Meri 1999; Hopmann and Riquarts, 2000 and Westbury, Hopmann and Riquarts 2000; Hudson 1999; 2002; 2003). However, it is obvious that these contributions have not yet led to any major change in concept building and research in didactics.

cal content knowledge then is an "intersection" of the teacher's content knowledge and pedagogical knowledge. Being a teacher means being an expert in teaching some content area and this is an ongoing task, a developmental task for the teacher. However, parallel to this, being a teacher means that he or she has to develop the skill to mediate and facilitate a student's studying of the content.

Here then is the first bridge to cross. We find it surprising in relation to Kansanen's definition that Wolfgang Klafki and his (former) students have never seen that there is a parallel between content knowledge transformed into pedagogical content knowledge and *Bildungsinhalt* (subject matter) transformed into *Bildungsgehalt* (educational subject matter).

7.2 Learner knowledge

Anne Maj Johansson and Per-Olof Wickman show that content/subject matter can be looked at from the teacher's perspective, producing pedagogical content knowledge. Yet it also has to be seen from the students' viewpoint, producing *learner knowledge*. The concept of learner knowledge is a necessary concept from the didactic triangle perspective. In a second step, the authors show that the concept of *learning progressions* allows teachers to make a difference between finding *ends-in-view* in joint action with their students and the *final end* of instruction. A fruitful end-in-view helps students make intelligent choices, even though they do not yet understand what the over-arching teaching objective is. Putting it another way, we can say that the ends-in-view allow students to find *sense* in what they are asked to do.

While Johansson and Wickman explicate their relation to the French didactic joint action theory, the concept of learner knowledge allows us to cross another bridge. German *Bildungsgangforschung* (research on learner development and educational experience)[10] emphasises the importance of sense making in the instructional process, stressing that the teacher's sense making will normally be different from the students' sense making.

7.3 Joint didactical action

We do not know whether it is by historical chance that German didacticians do not carry out their concept building on a semantic basis. Instead, they argue from a hermeneutic perspective. Gérard Sensevy and his colleagues show that hermeneutics is not enough in research on classroom instruction. The interaction and sense construction, negotiation of meaning etc. taking place in the classroom are first of all semantic phenomena and this means that the di-

10 See Meyer 2007, 2008 and his paper in this book.

dactic triangle has to be based on a semantic theory of instruction. This is what Sensevy and his colleagues do.

Sensevy writes that it is impossible to grasp the meaning of the teacher's action without understanding the relations between this action, the students' action, and the structure of the knowledge at stake. The same holds for the students and for the knowledge at stake. The closeness to the didactic triangle is obvious. What is new and what is impressive is the concrete description of the didactic system. It cannot be divided, it is holistic, it is extremely complex and it is dynamic. Sensevy writes in his contribution to this book, and we fully agree: "The educational settings that didactic theories endeavour to understand seem to be a valuable field for the development of joint action theory. In a didactic situation, joint action is simultaneously necessary and paradoxical. It is necessary since the teacher's and the student's action cannot be conceived separately. It is paradoxical since the joint action gains its ultimate meaning in the student's autonomy, thus amidst a certain kind of disappearance of the teacher's action."

Sensevy relies on John Dewey who explains that successful participation in the didactic system involves "joint anticipation", i.e. sharing a horizon of expectations, and "cross-referencing of meanings", i.e. negotiation of meaning. "Things gain meaning by being used in a shared experience or joint action" (Dewey, 1916/1966, p. 16).

This is a robust didactic theory and it allows substantial empirical research, as Sensevy and his colleagues, Florence Ligozat, Monique Loquet, Brigitte Gruson and Dominique Forest, demonstrate in their papers for this book.

7.4 Curricula

Curricula are the bridges from classroom instruction to the school as an institution and from there to society, and curriculum theory is meant to provide a structured framework for thinking about the institutional issues of schooling and instruction. Curriculum research then gives life to the expanded didactic triangle illustrated in Section 6 above.

We see the importance of integrated curriculum research as follows: (1) A very great variation seems to exist in Europe with respect to the status of curriculum research. It is well established in the United Kingdom and other English-speaking countries, it is dominant in the Russian Federation and the Southern European countries but, after a boom in the 1970s, it is deplorably underdeveloped in Germany. (2) Some researchers are convinced that curricula cannot be implemented against the will of teachers. In their contributions to this book, Sheila Henderson and Erika Cunningham, Yolande Muschamp and Cathryn Carena and Teresa Moran demonstrate this. The teachers' subjective standpoint concerning curriculum implementation is all-important. (3) However, in the East (see Rakhkochkine in this book) and South of Europe as

well as in the United States (Friesen 2010), we find researchers and administrators who develop wishful thinking concerning the steering capacities of school systems with the help of curricula and by other means. (4) Ian Westbury (2000) points out that in the US curriculum tradition the dominant idea has been *organisational* by referring to schools as institutions. Teachers are expected to be invisible agents for an optimal national, regional or local school system. Accordingly, they come to be viewed as brakes on the innovation, change and reform that might be considered by policymakers as necessary for the system. (5) Yolande Muschamp refers in her paper in this book to Jorg et al. (2007) who point out that we cannot know if contemporary educational objectives, e.g. literacy and numeracy, will make sense 20 years into the future. Hence, we have to ask whether it is possible to provide appropriate guidance for children and adolescents on a learning pathway without a clear view of where that pathway is leading the child. (6) Erich Weniger, the teacher of Wolfgang Klafki, has shown that curricula are influenced – whether teachers know it or not – by what he has called the powers of formation (*Bildungsmächte*) which include the state, churches, industry, societal conventions and convictions, jurisdiction etc. In the light of this, Weniger postulates that schools have the right to reject the illegitimate intervention of these powers (Weniger 1930/1952, publ. 1975).

Weniger's curriculum theory is virtually unknown outside of German-speaking countries (cp. Marsh 2009). We can therefore ask: How great is the influence of the powers of formation and how great is the influence of the teachers? We think that research at this level is indispensable.

7.5 A shift from teaching to learning?

All in all, from the perspective of the rest of Europe, the Scandinavian school systems stand for autonomy, autonomy of the individual school and of teachers and students, and we must ask what this means with respect to the didactic triangle as the core of didactics.

Ingrid Carlgren deals with this question. She asks whether there is a *paradigmatic shift* from teaching to learning in Sweden, in practice and in didactic research, and we can ask whether a similar development can be expected in other European countries. Are the Scandinavians the pioneers of school, teacher and student autonomy? And what is the philosophy behind this? There is no easy answer. Carlgren speaks of the long-range societal and mental changes required for that. She calls for a new definition of teaching and learning since the issue of learning has not been in the forefront of teachers' minds. In order to describe this development, Carlgren constructs three models of classroom work. At the first level of this model – *teaching a course* – the teacher sees himself/herself as the person responsible for instructing the students. He/she has a *transmission model* of classroom instruc-

tion. At the second level – *teaching for understanding* – the students' *performances* become important. Learning is communicating. The third level then is *teaching for capabilities*. A person who "knows" experiences the world in special ways that people who do not know are unable to.

We think this represents true progress in didactics.[11] However, Carlgren does not relate her work to Sensevy's joint action theory, nor to the didactic triangle. This means we have to ask how much student autonomy is necessary, and how much is sufficient. Does the catch phrase "from teaching to learning" then imply a paradigmatic turn back to teaching? We do not know. Perhaps the shift from teaching to learning has to be seen in light of the concept of Bildung as self-determination.

7.6 Bildung

The problem that didactics does not exist in Anglo-American tertiary education is not the only one. Beside this, we have to accept that one of the basic concepts of continental didactics, Bildung, also finds no equivalent.

Bildung is a fuzzy concept. Germans speak of the school system as being "allgemeinbildend", i.e. offering general education. They speak of the German "Bildungssystem" and mean the nationwide organisation of schooling, from pre-school to the upper secondary stage, vocational training and higher education. They discuss "Bildungsstandards" as meaning the level of competence all students should have reached at a certain age. Yet in this book we speak of "Bildung" in an emphatic sense, i.e. in relation to students' cognitive, social and moral development.[12] Bildung is understood to be the result of self-regulation. The students themselves have to develop the capacity for critical thinking, they have to transform their world-views and self-concepts; teachers can only help them.[13]

The idea of self-regulation dates back to Immanuel Kant. In his Lecture on Education (1803/1964, p. 711), he asks how one can *cultivate freedom* for the students when there is so much *coercion in society*, and this is not meant to be a rhetorical question but the central hypothesis for a research programme.[14] His question stands in contrast to what Comenius meant when he

11 In his paper in this book, Meinert Meyer develops a comparable, albeit not identical, concept with three levels of student-teacher interaction.

12 Bildung has been variously translated as "formation", "education" and "erudition". The latter derives from the Latin *eruditio* as used by Comenius and is the translation suggested by Hopmann and Künzli (1992). However, Westbury (2000) believes that "formation" is the best English translation.

13 For more, see Meyer's paper in this book.

14 Kant writes: "Eines der größesten Probleme der Erziehung ist, wie man die Unterwerfung unter den gesetzlichen Zwang mit der Fähigkeit, sich seiner Freiheit zu bedienen, vereinigen könne Denn Zwang ist nötig! Wie kultiviere ich die Freiheit bei dem Zwange?" *One of the biggest problems of education is how to combine subordination under lawful coercion with*

talked of a universal culture and of erudition. Bildung as erudition is transferred from the teacher to the students. In the Kantian tradition, however, Bildung is necessarily self-defined and self-arranged. What then is the correct concept, Bildung as erudition or Bildung as a culture of freedom? We get the impression that both definitions are useful, in dialectical difference and unity. In this situation, Immanuel Kant comes in once more. He argues that *experimental schools* have to be installed, schools in which teachers and researchers have the chance to experiment on how much freedom for students is possible and how much is necessary.

Conceiving teaching and learning from such a Bildung perspective means understanding it as a complex nexus of interaction, educational experience, social learning, moral development and content-related acquisition of knowledge and abilities. Within this nexus, the social and cultural world, i.e. the cultural heritage condensed in the curriculum, is "subjectified". There are things to be learned, but students are encouraged to find their own path. That is why Klafki (1995, 2000) emphasises the draft character of preparation for instruction and the need for openness of the mind on the part of teachers. Lesson preparation is the thoughtful *design* of one or several opportunities for particular students to have fruitful encounters with particular contents of education.

Klafki's perspective finds a strong resonance with the position of Shulman (1986) who emphasises the way in which a professional is seen to be concerned with how, what and why to teach. In both Klafki's and Shulman's perspectives, the teacher is seen to be in command not only of the procedure but also of content and rationale, and to be capable of explaining why something has to be done. Yet we have to accept that Immanuel Kant's position is further advanced with respect to democracy education. We need experimental schools because we cannot decide in advance how much freedom is good for the students. We imagine a fruitful combination of this concept with Ingrid Carlgren's *teaching for capabilities.* This is accordingly our bridge to the last step of argumentation.

7.7 Research and reality, theory and practice

Following Immanuel Kant, we argue for the need for experimental schools in which teachers, researchers and students can experiment concerning freedom of teaching and learning. But can we gain an idea of what kind of research we need?

We have already stated that qualitative research is more helpful for the local school and the individual teacher. Following Colleen McLaughlin in this book, we go one step further and claim that the *practitioner's action re-*

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the capacity to make use of one's freedom. For coercion is necessary. How can I cultivate freedom while there is coercion?

search appears to be the best instrument for improving everyday schooling and instruction. Lawrence Stenhouse even claimed that education would only improve when teachers become engaged in research and inquiry. He argued for teachers espousing an "extended professionalism" which involved three main elements: the commitment to systematic questioning of one's own teaching as a basis for development, the commitment and skills to study one's own teaching, and the concern to question and test theory in practice (Stenhouse 1975, p. 143). Subsequently, practitioner research was expanded to include students as co-researchers. Teachers are accordingly expected to consult students even though they may be nervous about student feedback.

So far so good. Yet what makes us, as researchers, nervous is the question of the acknowledgement of practitioner research. In the scientific community, a large-scale international quantitative assessment of students etc. ranks the highest, followed by qualitative case studies etc. at some distance behind. Practitioner research plays no role and is not accepted as serious research in this scientific world. What therefore can be done to improve the situation? We emphasise the need for national and international research assessment frameworks that recognise quality and excellence in practitioner research. Further, we take it for granted that such research needs to be rigorous, original and significant although we also think there is a need to value such research in terms of its impact on the local level. Parallel to this, there is a need to establish networks of schools in partnership with institutions of higher education that enable the exchange of knowledge from the local to the global and vice versa. As recently highlighted by research conducted at the international level, the world's most improving education systems pay more attention to changing processes rather than structures and resources, e.g. by modifying curriculum and improving the way teachers teach and school leaders lead (Mourshed et al. 2010). We believe that this report adds weight to our argument to recognise and reward high quality practitioner research at the local level.

8 Common ground for the multi-facetted tradition of didactics in Europe?

So what have we achieved and how far have we come? We have moved far beyond describing the European diversity. We have pieced several positions together in relation to the expanded didactic triangle. The teacher's pedagogical content knowledge, learner knowledge and joint didactic action in the instructional process provide the basis for our argument in favour of curriculum reform, self-regulated Bildung and practitioner research as the means for improving schools and instruction. In order to develop this line of argument, we have moved from Finland and Sweden to France, Germany and the UK and we have thereby *de facto* reached common ground.

We hope that this collection of papers demonstrates that we are now well beyond fragmentation in research on didactics, learning and teaching in Europe and that we have found areas of agreement to advance this field through future work that builds on diversity whilst seeking to achieve mutual understanding and common insights.

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